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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------------|------------------|
| 10/634,709 | 08/05/2003 | Amy Mac Bunker | PC25236A | 7386 |
| 28880 | 7590 | 01/12/2006 | EXAMINER | |
| WARNER-LAMBERT COMPANY 2800 PLYMOUTH RD ANN ARBOR, MI 48105 | | | BALASUBRAMANIAN, VENKATARAMAN | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1624 | |

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------------|---------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/634,709 | BUNKER ET AL. | |
| | Examiner | Art Unit | |
| | Venkataraman Balasubramanian | 1624 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12, 14 and 16-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12, 14 and 16 is/are allowed.
- 6) ☒ Claim(s) 17-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/8/04, 7/20/05, 10/17/05, 12/19/05</u> | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group II, claims 12, 14 and 16 -28, along with election of species of Example F9 in the reply filed on 12/9/2005 is acknowledged. Deletion of non-elected subject matter in claims 12, 14 and 16-28 is also noted.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Applicants have pointed out that as per the second preliminary amendment, the pending claims are 12, 14 and 16-28 not claim 1-16 as stated in the previous restriction requirement. Hence, for the record, the restriction requirement has been modified to indicate proper claims.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 12, 14 and 16-28, drawn to compound of formula I, wherein S, T, U and W each are C-R⁴, or drawn to formula II, wherein S,T and U are C-R⁴, namely benzene core compound, composition and method of use, classified in classes 548, 549, 544, 546 and others, subclasses 146, 215, 250, 300.1 and various others, class 514, subclasses 358, 372, 374, 378,

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- 385 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I and II.
- II. Claims 12, 14 and 16-28 drawn to compound of formula I, wherein one of S is N and the other three of T, U, W are each C-R⁴, or drawn to compound of formula II, wherein one of S, T and U is N, the other two of S, T and U are CR⁴, namely pyridine core compound, composition and method of use, classified in classes 546 and others, subclasses 268.1, 290, 291, 297, 298 and various others, class 514, subclasses 336, 345, 346 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I and II.
- III. Claims 17-28, drawn to compound of formula I, wherein S and T are each N, U and W are CR⁴ or T and U are each N and S and W are C-R⁴, or drawn to compound of formula II, wherein S and T each are N, U is CR⁴, or T and U each are N, S is CR⁴, namely pyridazine core compound, composition and method of use, classified in classes 544 and others, subclasses, 224, 238, 239 and various others, class 514, subclasses 247, 252.01 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I and II.
- IV. Claims 17-28, drawn to compound of formula I, wherein S and U are each N, T and W are CR⁴ or S and W are each N and T and U each are C-R⁴, or drawn to compound of formula II, wherein S and U each N, T is CR⁴, namely pyrimidine core compound, composition and method of use,

classified in classes 544 and others, subclasses 242, 298, 315, 316, 319, 320 and various others, class 514, subclasses 256, 269, 275 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I and II.

V. Claims 21-28, drawn to compound of formula I, wherein S, U and W are each N, T is C-R⁴, namely 1,3,5-triazine core compound, composition and method of use, classified in classes 544 and others, subclasses 180, 194, 196, 204, 216 and various others, class 514, subclasses 241 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I.

VI. Claims 21-28, drawn to compound of formula I, wherein S, T and W are each N, U is C-R⁴, or T, U and W are each nitrogen and S is C-R⁴, namely 1,2,4-triazine core compound, composition and method of use, classified in classes 544 and others, subclasses 182 and various others, class 514, subclasses 242 and various others depending upon the choice of preferred embodiments of V and the other variable groups of formula I.

As noted above, applicants have elected Group II, claims 12, 14 and 16-28.

Claims 12, 14 and 16-28 are under examination.

Information Disclosure Statement

References cited in the Information Disclosure Statements dated 3/8/2004, 7/20/2004, 10/17/2004 and 12/9/2004, are made of record except for an Office Action of another examiner as it is not a publication per se.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

1. Recitation of "any one of claims 17 and 21" renders claims 26-28 vague and unclear as to what is intended. Note Markush choices should be in alternate form.
2. Claims 19 and 20 are indefinite as it is not clear what variable group is being recited therein. Note there is no label or reference to variable group of formula II and hence it is not clear how to interpret these claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Riordan et al., US 5,756,524.

Riordan et al. teaches several anilide derivatives as fungicides, which include compounds embraced in the instant claim. See formula I, column 1, and note the definition of various variable groups A, X, Y, Z and R¹. Note when A is a six-membered heteroaryl containing one nitrogen, the compounds taught by Riordan et al. include instant compounds. Also note A can be further substituted with R² which include heterocyclyl groups. See column 2, wherein the heterocyclyl groups are defined and include 5-membered heterocyclic groups including tetrazoyl group. See entire document. Especially see column 5-18 for examples of various pyridyl compounds made. Particularly see compound 37 and also see compounds 148, 155.

Claim 21 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Strobel et al., EP 1,388,341.

Strobel et al. teaches several acylamino-substituted heteroaromatic compounds for treating cardiovascular diseases which include compounds generically embraced in the instant claim. See page 1, formula I, and note the definition of various variable groups X, R¹, R², R³, R⁴ and R⁵. Note R⁵ is a six-membered heteroaryl containing one nitrogen, the compounds taught by Strobel et al. include instant compounds. Also note R⁵ can be further substituted with heteroaryl or heterocyclic groups. See entire document. Especially Table 1-3 for examples of various heteroaromatic compounds made. Particularly see Table 3, compound 120.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Riordan et al., US 5,756,524.

Teachings of Riordan et al. as discussed in the above 102 rejection is incorporated herein. As noted above, Riordan et al. teaches several anilide derivatives as fungicides, which include compounds embraced in the instant claim. See formula I, column 1, and note the definition of various variable groups A, X, Y, Z and R¹. Note

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when A is a six-membered heteroaryl containing one nitrogen, the compounds taught by Riordan et al. include instant compounds. Especially see column 5-18 for examples of various pyridyl compounds made. Particularly see compound 37 and also see compounds 148,155.

Riordan et al. differs from the instant claims in exemplifying only few 5-membered heteroaryl substituted pyridyl compounds.

However, Riordan et al. teaches equivalency of those compounds taught in column 5-18 with those generically recited in column 1 for compound of formula I.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Riordan et al and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Claims 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable Strobel et al., EP 1,388,341.

Teachings of Strobel et al. as discussed in the above 102 rejection is incorporated herein. As noted above, Strobel et al. teaches several acylamino-substituted heteroaromatic compounds for treating cardiovascular diseases which include compounds generically embraced in the instant claim. See page 1, formula I, and note the definition of various variable groups X, R¹, R², R³, R⁴ and R⁵. Note R⁵ is a six-membered heteroaryl containing one nitrogen, the compounds taught by Strobel et al. include instant compounds. Also note R⁵ can be further substituted with heteroaryl or

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heterocyclic groups. See entire document. Especially Table 1-3 for examples of various heteroaromatic compounds made. Particularly see Table 3, compound 120.

Strobel et al. differs from the instant claims in exemplifying only few 5-membered heteroaryl substituted pyridyl compounds.

However, Strobel et al. teaches equivalency of those compounds taught in Table 1-3 with those generically recited in page 1 for compound of formula I.

Thus it would have been obvious to one having ordinary skill in the art at the time of the invention was made to make compounds using the teachings of Strobel et al and expect resulting compounds to possess the uses taught by the art in view of the equivalency teaching outline above.

Allowable Subject Matter

Claims 12, 14 and 16 are allowed.

Conclusion

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is James O. Wilson, whose telephone number is (571) 272-0661.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAG. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-2 17-9197 (toll-free).


Venkataraman Balasubramanian

1/7/2006